

THE SPECIES OF PHYLLANTHUS (EUPHORBIACEAE) COLLECTED BY SESSÉ AND MOCIÑO

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The lugubrious fate of Sessé and Mociño's botanical writings, which were not published until nearly a century after their completion, has been described by a number of authors, notably Sprague (Kew Bull. 1926: 417-425). Most of the names published so belatedly in the "Plantae Novae Hispaniae" (ed. 1, 1887-1891; ed. 2, 1893) and the "Flora Mexicana" (ed. 1, 1891-1897; ed. 2, 1894) have been relegated to synonymy, but in the interest of nomenclatural stability it would be desirable if all of the names could be properly typified and taxonomically evaluated. By no means all of the specimens in the Plantae Novae Hispaniae collection in the Madrid Herbarium were listed in the two published books, and not all of the Sessé and Mociño collections are preserved at Madrid (some, for example, are only at Geneva). Furthermore, as pointed out by McVaugh (ined.), a number of different writers have published on the Sessé and Mociño collections. Consequently, a considerable amount of labor is involved in accounting for all aspects of Sessé and Mociño's botanical work.

In the course of revisionary studies on the Mexican and Central American species of *Phyllanthus*, it has been found necessary to interpret various names proposed for the Sessé and Mociño collections. Fortunately, I was able to examine a set of their specimens from the Instituto Cavanilles at Madrid through the courtesy of the Chicago Natural History Museum and Dr. Rogers McVaugh (who is preparing an account of the contributions to botany made by Sessé and Mociño). In the following review, therefore, both the names published by Sessé and Mociño and their specimens are disposed of according to present concepts of the neotropical species of *Phyllanthus*.¹

SPECIES OF PHYLLANTHUS DESCRIBED BY SESSE AND MOCINO²

1. PHYLLANTHUS AMERICANUS Sessé & Moc., Pl. Nov. Hisp. ed. 1, 159. 1890; Fl. Mex. ed. 2, 212. 1894.

¹ I wish to acknowledge the generous assistance of Dr. Rogers McVaugh, who reviewed the manuscript, made some helpful suggestions, and provided a copy of the treatment of *Phyllanthus* in his forthcoming book on Sessé and Mociño.

² The localities quoted in this section are mostly taken from the discussions in the 'Plantae Novae Hispaniae' and 'Flora Mexicana,' as the specimens examined by me are nearly devoid of locality data. The serial numbers cited are those of the Sessé and Mociño specimens at the Instituto Antonio Jose Cavanilles, Madrid (MA), some duplicates of which are in the herbarium of the Chicago Natural History Museum (F); these numbers were arbitrarily assigned in Madrid about 1935, and bear no relation to the original numbers of the collectors. *SIDA* 2 (5): 377-380. 1966.

No. 4561; said to have been collected "in temperatis agris" near Mazatlán, a small village in Guerrero. The collection represents *Phyllanthus galeottianus* Baill. (*Adansonia* 1: 32. (1860); Baillon cited a duplicate sheet of the collectors in the Delessert Herbarium, but implicitly typified his specific concept by a Galeotti collection.

2. PHYLLANTHUS DECANDER Sessé & Moc. Fl. Mex. ed. 2, 212. 1894. Nos. 4565 (ex p.), 4566; collected near Guanabacoa, a suburb of Havana.

Both the description and the specimens clearly refer to *Phyllanthus discolor* Poepp. ex Spr., an endemic Cuban species.

3. PHYLLANTHUS NIRURI sensu Sessé & Moc., Pl. Nov. Hisp. ed. 1, 159. 1890 (non L. 1753 nec Fl. Mex. 1894).

No. 4556; cited as from Acahuizotla, Gro., and Apatzingan, Michoacán.

Baillon (*Adansonia* 1: 35. 1860) based his *Phyllanthus mocinianus* on a Sessé and Mociño collection in the Delessert Herbarium; this has been annotated by McVaugh as a holotype, so that No. 4556 presumably represents an isotype of the species.

4. PHYLLANTHUS NIRURI sensu Sessé & Moc. Fl. Mex. ed. 2, 212. 1894 (non L. 1753).

Two species described under this name are both represented in the collections at Chicago, and neither of them is the same as the plant described as "P. niruri" in the 'Plantae Novae Hispaniae'; true *P. niruri* is not represented among the Sessé and Mociño collections seen by me.

The first "Phyllanthus niruri" on p. 212, said to be from "rupes cavernae" at Tagarnana, near Havana, Cuba, appears to be represented by specimen No. 4453; this is *Phyllanthus pentaphyllus* Wright. The description of the second "Phyllanthus niruri" on p. 212, also from Tagarnana, suggests *P. caroliniensis* ssp. *saxicola* (Small) Webster. However, the only other herbaceous plants in the Sessé and Mociño collection labelled as *P. niruri* are Nos. 4554 and 4555, which represent *P. compressus*, a Mexican species not known in Cuba. Evidently Sessé and Mociño's concept of *P. niruri* was badly confused.

Baillon (*Adansonia* 1: 31. 1860) described *Phyllanthus cyclanthera* Baill. on the basis of a Sessé and Mociño specimen in the Delessert Herbarium, a fragment of which is preserved at the Laboratoire de Phanérogamie, Paris (P). The sheet bears in Baillon's handwriting a label reading, in part: ["Phyllanthus] niruri, Moc. ms. Mexico, Sessé et Mociño. (ex herb. Lessertiano)". Mueller (DC. Prodr. 15 [2]: 408. 1866) apparently saw the main sheet of this in the Delessert Herbarium, as he noted that it was labelled by Pavon "N.E." [Nova España], which misled Baillon into thinking that the plant was from Mexico instead of from Cuba. Neither McVaugh nor I were able to relocate this Pavon sheet, which should be deposited at the Conservatoire Botanique in Geneva

(G); evidently it has been lost. Since, as pointed out earlier (Webster, *Contr. Gray Herb.* 176: 48-50. 1955), the specimen preserved by Baillon is a portion of a plant of *Phyllanthus pentaphyllus*, it cannot serve as the typical element for a species characterized by Baillon as having a highly specialized androecium (synandrium). As Baillon described the Cuban synandrium-bearing species a year later (*Adansonia* 2:13. 1861) as *P. lindenianus*, it has seemed best to reject the name *P. cyclanthera* Baill. as a nomen confusum. It should be pointed out that there are no specimens of *P. lindendianus*, or any other member of sect. *Cyclanthera*, among the collections at Madrid, while on the other hand Sessé and Mociño did collect *P. pentaphyllus* in Cuba. Consequently, unless the Pavon sheet noted by Mueller is rediscovered, there is no need to modify the nomenclatural decision arrived at a decade ago, and there remains no evidence that Sessé and Mociño ever collected *P. lindenianus*.

5. PHYLLANTHUS QUINQUEFIDUS Sessé and Moc. Fl. Mex. ed. 2, 212. 1894.

No. 4567; plant said to come from Toa Alta, a locality in Oriente Province, Cuba. Baillon (*Adansonia* 1:39-40. 1860) correctly referred a Sessé and Mociño specimen with this name to the synonymy of *P. juglandifolius* Willd., but mistakenly judged the locality to be in Mexico.

6. PHYLLANTHUS ROTUNDIFOLIUS Sessé & Moc. Fl. Mex. ed. 2, 212. 1894.

No. 4565 (ex p.) (mixed with *P. discolor*). The label on sheet 4565 reads *P. decander*; evidently two collections were confounded when mounted. The description and associated specimen clearly represent *P. orbicularis* Kunth, a species endemic to Cuba.

ENUMERATION OF SPECIES REPRESENTED

IN THE SESSE AND MOCINO HERBARIUM COLLECTIONS

- P. acuminatus* Vahl: 4563, 4564 ex p.
- P. compressus* Kunth: 4554
- P. discolor* Poepp. ex Spr.: 4565 ex p., 4566
- P. galeottianus* Baill.: 4561
- P. grandifolius* L.: 410 bis, 691, 692, 4683
- P. juglandifolius* Willd.: 4567
- P. mocinianus* Baill.: 4556, 4557, 4558, 4559
- P. orbicularis* Kunth: 4565 ex p.
- P. pentaphyllus* Wright: 4453 bis
- P. polygonoides* Nutt. ex. Spr.: 4560
- P. sessei* Briq.: 4562, 4564 ex p.

Of the species enumerated in this index to specimens, some of the ones published on by authors other than Sessé and Mociño require additional comment, as detailed below. Furthermore, some species proposed by other botanists are not represented in the main Sessé and Mociño

collection at Madrid. Additional details on these taxa, including references to illustrations made by Sessé and Mociño's botanical party, are given in the work by McVaugh (ined.).

PHYLLANTHUS FILIFORMIS Pavon ex Baill. Adansonia 1: 29. 1860.

The type specimen, cited by Baillon as 'Pavon, Mexico, n. 315 (h. Less.)', was referred to *P. lathyroides* B *genuinus* by Mueller (DC. Prodr. 15 [2]: 404. 1866). According to McVaugh (ined.), this specimen is now at Geneva. The plant, which is not represented at Madrid, seems best classified as *P. niruri* L. ssp. *lathyroides* (Kunth) Webster, Contr. Gray Herb. 176: 52. 1955.

PHYLLANTHUS GRANDIFOLIUS L. Sp. Pl. 981. 1753.

The specimens of this plant were not well understood by Sessé and Mociño, as most sheets were unlabelled, and No. 691 was ticketed as *Genipa!* These specimens have been determined as *P. laxiflorus* Benth.; however, that, as well as several other proposed Mexican and Central American species of subg. *Botryanthus*, appears to be a synonym of *P. grandifolius*.

PHYLLANTHUS MOCINIANUS Baill. Adansonia 1:35. 1860.

As noted above (under species described by Sessé and Mociño), this species was based on a Sessé and Mociño collection which is now preserved at Geneva. Judging from specimen labels and the annotations by McVaugh (ined.), Sessé and Mociño apparently equated this plant with either *P. niruri* or *P. emblica*, while Pavon recognized it as a new species 'Phyllanthus arboreus' which, however, was published only in synonymy by Baillon.

PHYLLANTHUS SESSEI Briq. Ann. Cons. Jard. Bot. Geneva 4:224. 1900.

According to McVaugh (ined.), the type of this species is at Geneva (G-Del), and bears a Pavon label 'Phyllanthus acuminatus N E, as well as the number '34'. The specimens at Madrid, 4562 and 4564, seem to represent the same gathering but may be a different collection from the type, since they have the number '21-3'. It is not surprising that the Spanish botanists confused this plant with *P. acuminatus*, since as Briquet acknowledged it is quite similar in many respects. However, it differs from *P. acuminatus* in its blunter leaves, different inflorescence (female flowers often 2 or 3 and males several per node, vs. female flowers solitary and males many per node in *P. acuminatus*), and larger male flowers (calyx c. 1.5 mm long) with blunter anthers. Unfortunately, no specific locality was preserved on the specimen labels, which merely say 'Nova Hispania', and the species does not seem to have been recollected. It is to be hoped that it will be rediscovered during further botanical collecting in the tropical parts of Mexico.